Sociocultural and scientific beliefs: interrelationships and the experience of well- or mal-being

Koukkou, M ; Faber, Pascal L ; Milz, Patricia

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Sociocultural and scientific beliefs: interrelationships and the experience of well- or mal-being.

Koukkou M., Faber P.L., Milz P.

The KEY Institute for Brain-Mind Research, University Hospital of Psychiatry, Zurich, SWITZERLAND.
E-mail: mkoukkou@key.uzh.ch

Summary

We present hypotheses and basic results of a large-scale research project that uses validated questionnaires and addresses the impact of the memories of the education style of the age-important, natural and professional caregivers on the individual's subjective experiences of well- or mal-being in crossroads of his/her life. The tested hypothesis is: The subjective experiences of bio-psychosocial well-being, of quality of life, is crucially formed by the contents of working memory that humans create out of the (by definition) hierarchical interactions with their caregivers. The socio-cultural and scientific beliefs of the caregivers about education duties/rights plays the main role for the quality of interactions.

The results showed clearly that

- Memories of support and praise (of cooperative interactions caregivers – developing individual) go parallel with a good or with high quality of life
- Memories of restriction, disapproval and inconsistency go parallel with low quality of life.

Introduction

The scope of the second international psychiatric congress with the general title "Pluralisms in psychiatry" was to further promote the interactions among scientists concerned with mental health and disease in order to seek for convergence in quest of a constructive synthesis; a synthesis which could eventually lead not only the betterment of research outcome in mental health but also the betterment of the programs for primary prevention.

We contributed to this very important scope of this congress a) by presenting the basic hypothesis and the main results of a large scale research project that addressed the impact of socio-cultural and scientific beliefs about educational duties/rights of natural and professional caregivers on the subjective experiences of biopsychosocial well-being (quality of life; The WHOQOL Group 1998) in different groups of mentally healthy individuals at different self-decided crossroads of life, b) by discussing the results of this project based on the proposals of an integrative, living systems theory (Bertalanffi, L. 1974, Miller, J. G. 1978) oriented model of the functions of the human brain that create the contents of autobiographical memory (Koukkou, M. and Lehmann, D. 1996, 1998, 2006, 2010). Specifically we discuss how and why the brain functions that create autobiography out of the interactions of the

developing individual with the socio-cultural and scientific beliefs and convictions of his/her natural and professional caregivers may participate in his/her experience of well- or mal-being. In other words, the question is how the contents of autobiography form the subjective experience of well- or mal-being of mental healthy individuals in crossroads of life (Karli, P. 1991, Merzenich, M. M. and Decharms, R. C. 1996, Karli, P. 1997).

Crossroads are the moments in life at which the young adult is expected by his/her social reality to decide what his/her position in this society should be or he/she would like it to be.

Psychiatry and psychology repeatedly described periods of transition as a time of risk with regard of the appearance and manifestation of deviations of psycho-social well-being. That is why the main criterion for choosing the population of our project were the crossroads in life (Kohonen, T. 1989, Cacioppo, J. T. 1994, Magnusson, D. 1997, James, A. et al. 1998, Karmiloff-Smith, A. 1998).

The following are the basic three hypotheses of the project:

a) The subjective experience of psychosocial well-being is influenced by the characteristics of the coping and reality-controlling cognitive-emotional strategies that humans create progressively during development as results of the interaction with their age-important social realities; the contents of working memory (Hebb, D. 1949, Hebb, D. 1961, Fuster, J. M. 1995, Magnusson, D. 1997, Fuster, J. 2003). These coping and reality controlling strategies reflect the well- or mal-adaptive adjustment of the developing individual to the quality of interactions with the age-important social realities.

b) Strategies created as the result of uncooperative interactions with the age-important social realities are the basic causes of the individual subjective experience of mal-being.

c) Strategies as parts of the autobiography can non-consciously influence the subjective experience of quality of life, especially at a self-decided crossroad in life (Fuster, J. M. 1995, James, A., Jenks, C. et al. 1998, Karmiloff-Smith, A. 1998, Albright, T. D. et al. 2000, Fuster, J. 2003, Habeck, C. et al. 2006).

The tested hypotheses are based on the proposals of the living systems theory

- Humans, like all complex living systems are in a continuous and dynamic interaction - a communication – with the physical and social realities in which they are born. Herewith humans undergo stages of development.
- Humans are seen as oriented towards survival, but mainly towards psychobiological healthy growth, individualization and autonomy. A given degree of cooperative interactions, of the social environment (the caretakers) with the developing individual is the prerequisite not only for survival but mainly for the development of the contents of autobiographical memory and specifically of skills and cognitive-emotional coping and reality-controlling strategies that enable a psychosocially well-adapted and healthy growth, individualization, and autonomy.
- The multiplicities of the subjective experiences of well- or mal-being (of quality of life) are the products of the experience-dependent synaptic plasticity (the learning processes) of the neocortex. This means subjective experiences of quality of life is the product of the personal meaning extracting functions of the neocortex which create biographies and herewith create individuals as well- or mal-adapted members of their socio-cultural realities.

(Fuster, J. M. 1995, Magnusson, D. 1997, Fuster, J. 2003, Habeck, C., Hilton, H. J. et al. 2006, Koukkou, M. and Lehmann, D. 2006, 2010)

Materials and methods

We have tested our hypotheses on 920 mentally healthy individuals at different self-decided crossroad in life. We present the results of the studies with subjects aged 18-25 years (N=774).

- Students in the first semester of several faculties of the University of Zurich (N=362)
- Students in the second semester of different faculties of the University of Zurich and of the Swiss Federal Institute of Technology in Zurich (N=275)
- High school graduates (N=70)
- Recruits and women volunteers of the Swiss army (N=67)

The subjects were asked to fill out the following questionnaires:

1. A questionnaire developed by the world health organization (WHO) focusing on the subjective experience of Quality of Life (WHOQOL-100; The WHOQOL Group 1998). The WHO Group defines quality of life as: "individuals' perceptions of their position in life in the context of the culture and value systems in which they live and in relation to their goals, expectations, standards and concerns". It is a broad-ranging concept, incorporating in a complex way the person's physical health, psychological state, levels of independence, social relationships and relationships to salient features of their environment. It can be estimated in the 7 scales: Physical well-being, Psychological well-being, Level of independence, Social relationships, Environment, Spirituality, Overall.
2. An inventory of memories of the educational style of one's parents, separate for mother and father (ESI; Krohne, H. W. and Pulsack, A. 1995). This questionnaire consists of 6 scales: Support, Restriction, Praise, Disapproval, Inconsistency and Punishment.

We calculated correlations between each of the 7 scales of the Quality of Life questionnaire and the scales of the questionnaire estimating the memories of the educational style of the mother and father separately for all participants in each study.

We dichotomized the subjects into groups based on low and high values individually for the 7 scales of the WHOQOL-100 and compared the resulting groups for each of the six ESI-scales using unpaired Mann-Whitney-U-Tests, separately for recalled educational style of mother and father.

Results

The correlations yielded the following main results. Memories of support and praise correlated significantly with subjective experience of higher quality of life. Memories of restriction, disapproval and inconsistency correlated significantly with subjective experience of lower quality of life. These findings were significant over all individuals who participated in the project.

The comparisons of the groups with high and low values of quality of life yielded the most prominent results for the scales psychological and physical quality of life. Groups dichotomized based on these two scales differed significantly on all 6 ESI scales for both the father and mother version of the questionnaire.

The ESI scales Support and Praise showed significantly higher values for the group with high physical quality of life, whereas the scales Restriction, Disapproval, Inconsistency

and Punishment showed significantly lower values. This was true for the recalled education style of both mother and father. Figure 1 illustrates these results.

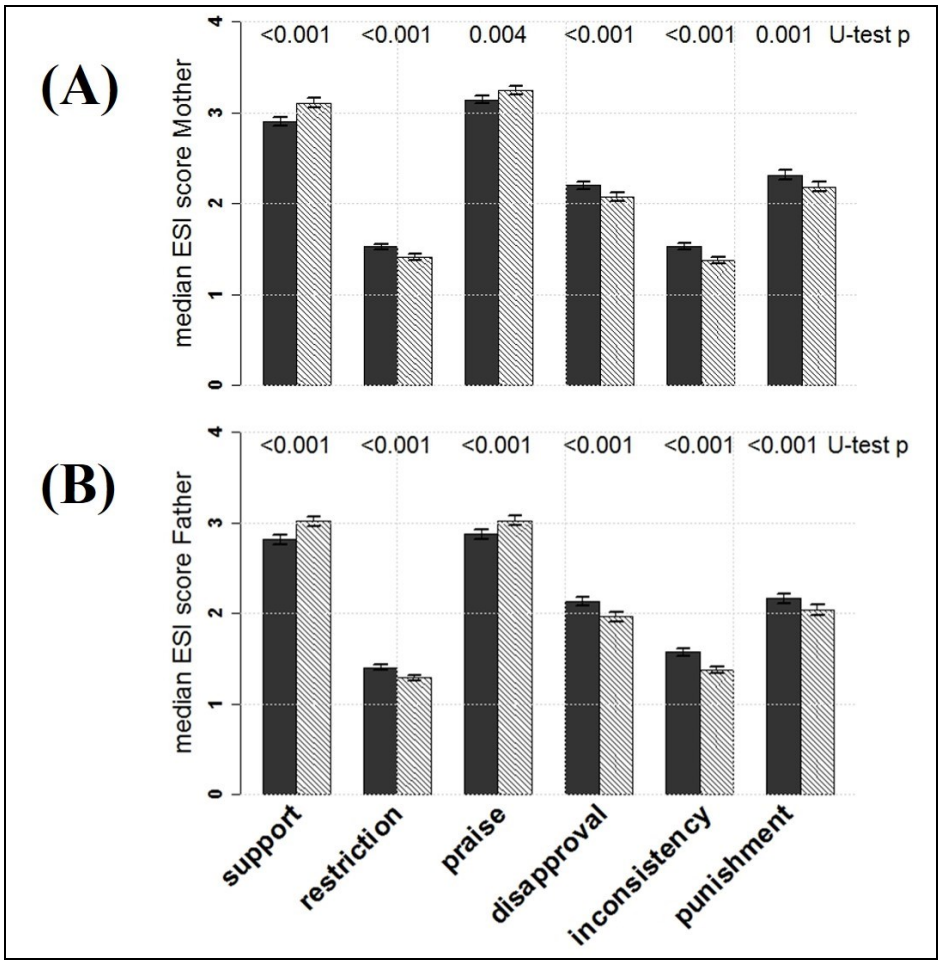

Figure 1. Educational style of Mother (A) and Father (B) on six ESI scales and physical quality of life. Bars indicate median ESI scores for groups of individuals with low (black) and high (striped) physical quality of life. Vertical bars indicate standard errors.

Figure 2 shows the results for the scale psychological quality of life. Again the two ESI scales Support and Praise showed significantly higher values for the group with high psychological quality of life, whereas all the other ESI scales showed significantly lower values. This was again true for the recalled education style of mother and of father.

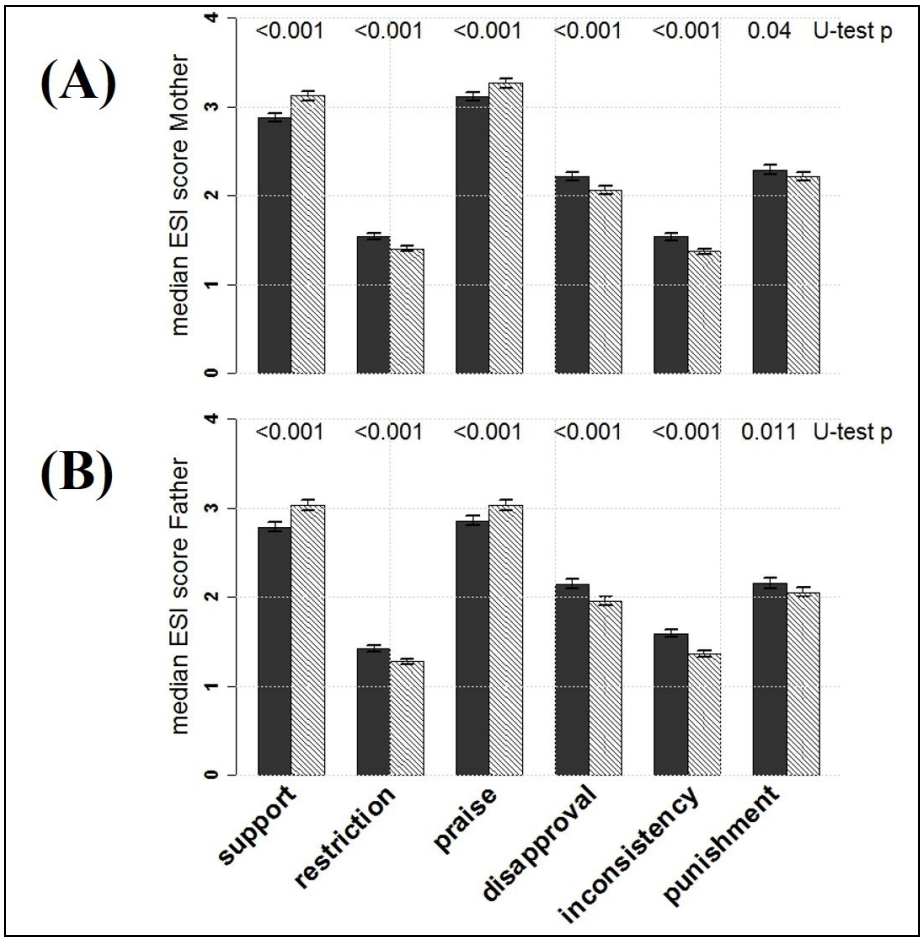

Figure 2. Educational style of Mother (A) and Father (B) on six ESI scales and psychological quality of life. Bars indicate median ESI scores for groups of individuals with low (black) and high (striped) psychological quality of life. Vertical bars indicate standard errors.

Conclusions

The findings of these studies bring further support for the proposals of the living systems theory that there are regulated associations across subjects between, on the one side the quality of interactions of the age-important natural and professional caregivers with the developing individual and on the other side the individual's subjective experience of quality of life, which means of coping. Specifically, the results of these studies provide clear evidence that an indicator of high or low subjective experience of quality of life is associated with memories of cooperative versus uncooperative interactions of the age-important natural and professional caregivers with the developing individual.

The results presented in this paper demonstrate additionally that the WHO Quality of Life questionnaire is a reliable instrument that can be used not only to estimate the diverse ranges of cultures, but also to estimate aspects of roles between interactions of mother and father with sons and daughters.

Since the presented results are focused on young adults, we think that the value of our results can be increased by using the same instruments to test populations at the end of their studies.

Thus the results of our studies contribute to the further understanding of the ways in which the sociocultural and scientific beliefs of the age-important caregivers impact on the personal meaning-extracting functions of the brain, and herewith shape the context of autobiographical memory which form the individual's subjective experience of well- or mal-being.

This understanding is important not only for the betterment of research outcome and clinical care in Psychiatry but also for the betterment of the primary prevention programs in mental health and disease.

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